

THE ORNATE APHID, NEW TO NORTH AMERICA

(Myzus ornatus Laing)

BY E. O. ESSIG

My experiences with the ornate aphid, *Myzus ornatus* Laing, during the past two years have been such as to induce me to make this permanent record of them. The discovery of a new and distinct insect pest is not a rare thing, but the circumstances involved in connection with this particular species are most interesting. On April 4, 1936, I collected a very small pale green aphid from the young tips of fuller's teasel, *Dipsacus fullonum*, growing on a vacant lot adjacent to my back yard in Berkeley, California. It occurred in considerable numbers on that host, but I was unable to find it on any of the many ornamental plants that were growing just over the fence in my own yard. However, a few specimens were taken on sheep sorrel, *Rumex acetosella*, about a mile distant. The fact that both of these hosts were introduced led to the conclusion that the aphid was probably also an immigrant and so specimens were sent to a number of American aphidologists for determination. It proved to be unknown to all of them. Failing to find a published description I decided to describe it as a new species and sent in a manuscript for publication just prior to leaving for a year of aphid collection and studies in Europe. I forgot all about the little green aphid, until October 14, when, examining some leaves of English ivy, *Hedera helix*, collected in the Jardin Botanique, Brussels, Belgium, which were heavily infested with the ivy aphid, *Aphis hederæ* Linn., I discovered 4 apterous specimens of what I was sure could be no other than the one on fuller's teasel in California. This convinced me that it was probably not a new species, but what was it? A diligent search along the ivy-covered walls of the gardens in the heart of a great city yielded a few more specimens. And then winter frosts suddenly put a stop to my out-door collecting. To my great surprise and delight the new aphid was found in abundance in the greenhouses of the Jardin Botanique, where it was taken on *Crotalaria anagyroides*, *Achyranthes* sp. (*Iresine*), *Lantana* sp., and *Aelotropium peruvianum*, all introduced plants.

Upon my arrival at the British Museum of Natural History, London, on January 6, 1937, the mounted specimens were anxiously displayed to Frederick Laing, who immediately recognized the species as *Myzus ornatus* described by him in 1932¹ from specimens collected on violet by L. N. Staniland at Devon, near Dawlish, England, in February, 1932. This ended all of my anticipations and made it necessary to withdraw the manuscript from publication and thus avert another synonym, which fortunately succeeded.

Laing had already taken the species on a considerable number of host plants in various parts of England, and he gave me specimens taken on *Salvia* sp. and on *Chrysanthemum* sp. In the course of my collecting in England additional specimens were secured as follows:

On *Richardia rehmanni*, *Panax lancasteri*, and *Buddleia orientalis* in the greenhouses at Wisley, Surrey, April 8, 1937; on the young shoots of *Ulmus campestris* and on dandelion and *Urtica dioica* out of doors at Virginia Waters, Surrey, May 17, 1937; on apple, outside, at Arundel, Surrey, June 1, 1937; and on *Buddleia* sp., dandelion, *Geum urbanum*, *Lapsana communis*, *Salvia* sp., *Scabiosa* sp., and *Teesdalia nudicaulis*, out of doors, at Cheddar, Somerset, June 2, 1937.

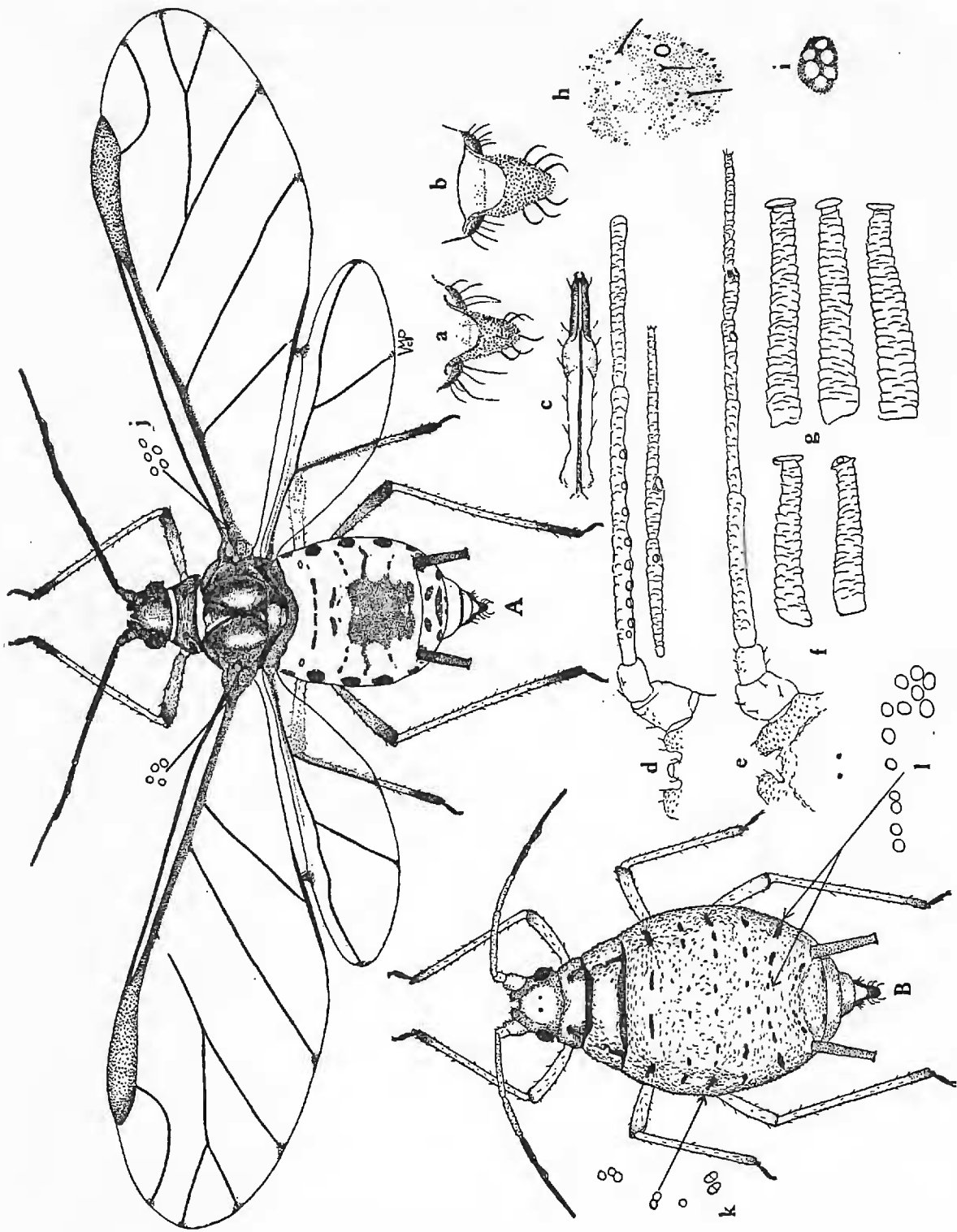
Since returning to California I have found this aphid quite abundant in my garden at Berkeley on *Fuchsia elegans*, *Potentilla* sp., and violet. It has also been taken in Berkeley on *Ranunculus repens* by W. Sampson, November 1, 1937, and on cultivated strawberry by E. Ivy, December 4, 1937. Specimens were also received which were collected on heliotrope at Los Angeles by Ralph H. Smith, December 6, 1937.

From all the evidence at hand it seems probable that this aphid may have been introduced into all of these localities in California and in Europe. Otherwise it is hardly possible that it could have escaped detection for so many years.

DESCRIPTION

Apterous viviparous female. Very small, oval, flattened, pale yellow or green, with darker green or dusky broken bands across the dorsum as figured. In cleared specimens these dark bands prove to be series of dark glandular pores arranged in irregular

¹ Laing, F. A new aphid-pest of violets (*Myzus ornatus* sp. n.). Ent. Monthly Mag., 68:52-53, 1932.



DESCRIPTION OF PLATE

Fig. 1. The ornate aphid, *Myzus ornatus* Laing. A, adult alate female; a, cauda; c, rostrum; d, front of head and antenna; f, cornicles; h, lateral abdominal dusky area; i, group of abdominal gland pores; j, fenestras near base of subcostal vein. B, adult apterous female; b, cauda; e, front of head and antenna; g, cornicles; l, gland pores arranged in dark broken bands on abdomen; k, lateral gland pores. All greatly enlarged. (Drawing by U. S. Works Progress Administration.)

broken transverse bands. Body rugose and somewhat papillated. Appendages transparent with the tarsi, apical portions of the antennæ and cornicles, cauda, anal plate, and genital plate dusky. A few short hairs on the antennæ and legs. Frontal tubercles gibbous, rough, with few short slightly knobbed hairs, which occur also on the antennæ. Antennal segment I large and convex on the inner margin, but not gibbous. Length of antennal segments: I, 0.07 mm.; II, 0.05 mm.; III, 0.23 mm.; IV, 0.15 mm.; V, 0.13 mm.; VI, 0.24 mm. (base 0.07 mm.; unguis 0.17 mm.); total 0.87 mm. Secondary sensoria absent. Rostrum extending beyond second coxæ; pale with dusky tip; apical segments narrow. Cornicles almost cylindrical; tapering slightly apically; terminating in a conspicuous flange; imbricated and roughened; apices often slightly recurved; length 0.31 mm. Cauda nearly conical, slightly constricted basad; with two or three pairs of hairs; length 0.12 mm. Length of body 1.20 to 1.70 mm.; width 0.70 to 0.90 mm.

Alate viviparous female. Shape normal; black and pale greenish-yellow with dusky markings on the abdomen as illustrated. Antennæ, legs, cornicles, and cauda largely black or dusky. Frontal tubercles less prominent than in the apteræ. Antennæ shorter than the body; lengths of the various segments: I, 0.05 mm.; II, 0.06 mm.; III, 0.40 mm.; IV, 0.27 mm.; V, 0.20 mm.; VI, 0.38 mm. (base 0.10 mm.; unguis 0.28 mm.); total 1.36 mm. Circular secondary sensoria arranged in a row throughout much of the length of III and varying in number from 7 to 12. Wing veins brown, faintly dusky bordered, the stigma long. Rostrum extending to the second coxæ. Cornicles similar to those of the apteræ, but smaller, 0.25 mm. long. Cauda 0.14 mm. long. Length of body 1.50 to 2 mm.; width 0.8 mm.; length of fore wings 2.50 to 3 mm.

CARABUS FORRERI BATES IN ARIZONA

Numerous specimens of this Mexican species of *Carabus* have been collected in the Chiricahua Mts. of Arizona within recent years. The first seen were collected on June 21, 1927, by J. August Kusche and others were collected July 12, 1936, by M. Cazier and Edward S. Ross. They are absolutely identical with specimens from Durango, Mex., numerous examples of which I have, including a practical paratype received from the British Museum.—Edwin C. Van Dyke.